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GB2114456 A  
GB2106400 A  
GB1365888 A  
US4211405 A  
US4211404 A

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FIG 1

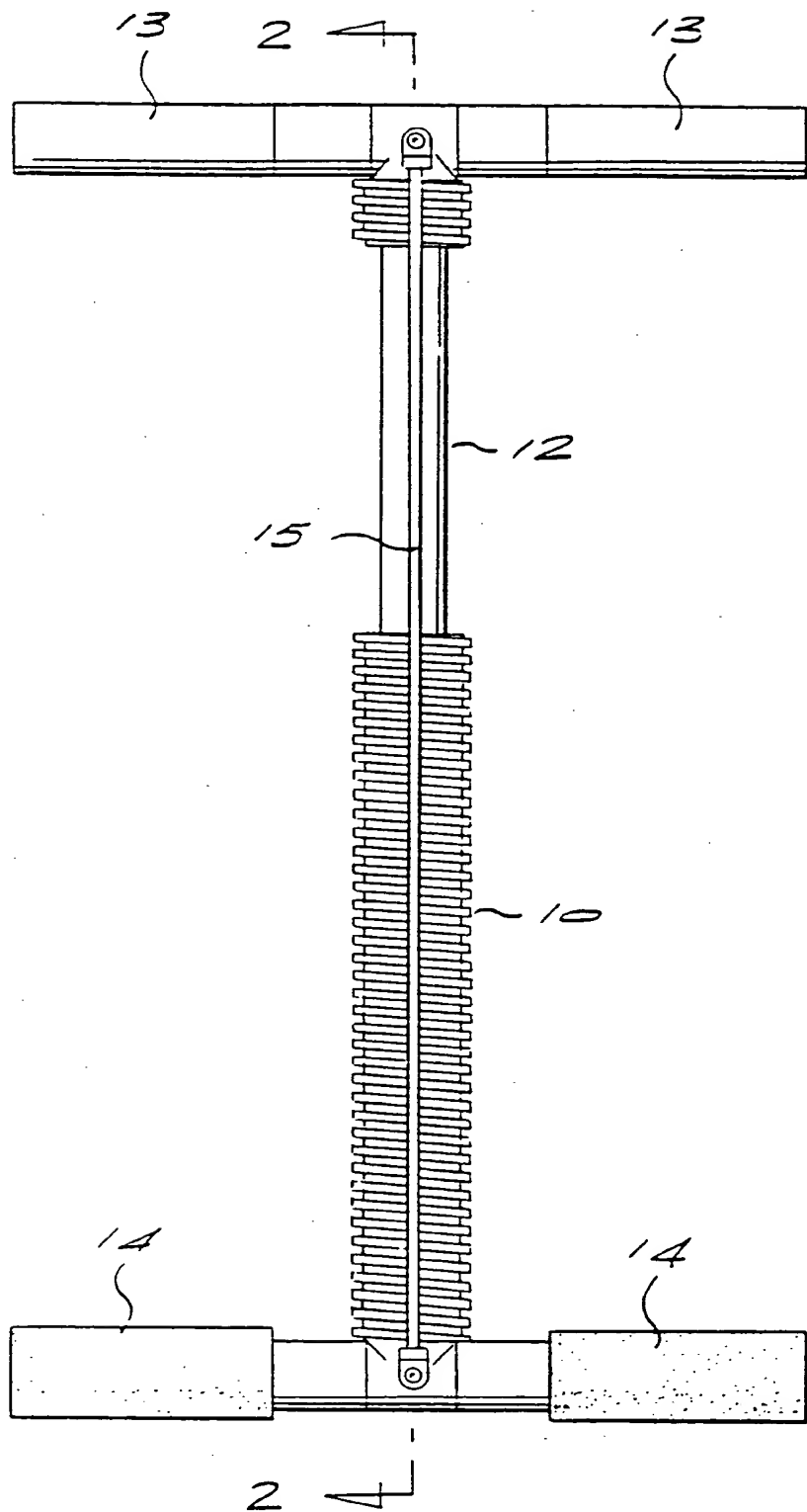
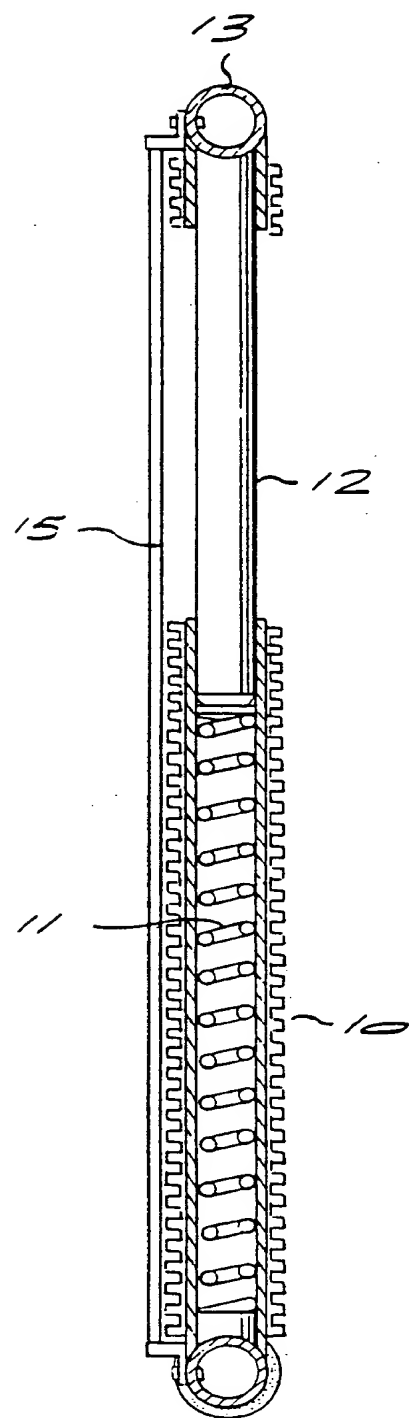
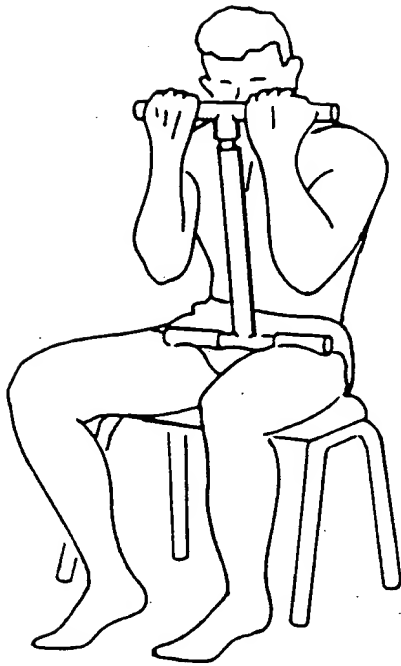
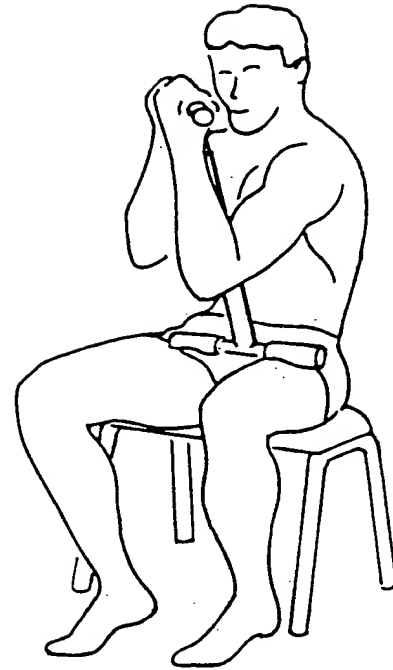


FIG 2

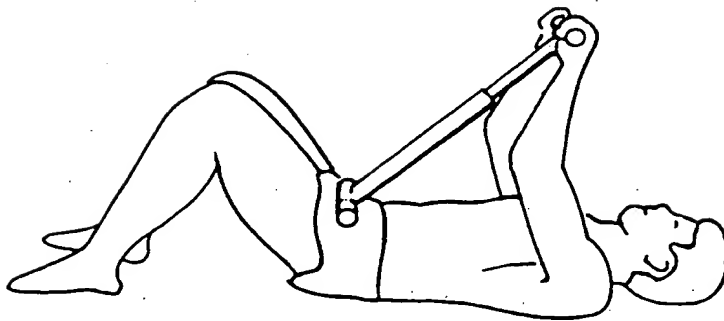




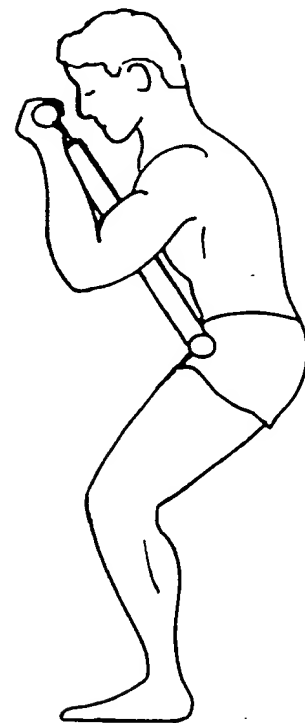
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### EXERCISE APPARATUS

THIS invention relates to a stomach muscle exerciser.

5 As far as the applicant is aware there is no simple and relatively cheap apparatus available for exercising the stomach muscles. Most devices for this purpose place strains on the skeleton and on muscles other than stomach muscles.

10 According to the present invention there is provided an exercising device comprising: a) a strut composed of a first member having a first end and a second end and a second member arranged telescopically with the first member, the second member being of tubular form with an open first end and a closed second

15 end, the first end of the first member being axially slidable within the second member and being capable of withdrawal through the first end of the second member; b) a compression spring located in the second member between the first end of the first member and the second end of the second member, axial movement

20 of the first member into the second member compressing the spring; c) third and fourth members spanning transversely across the second end of the first member and across the second end of the second member respectively, one of the third and fourth members providing handles at opposite ends thereof and the other

25 of the third and fourth members having padded ends for resting comfortably against the thighs or lap of a user; and d) an elastic cord connected across the first and second members to hold the first and second members in their telescopic relationship and to prevent undesired withdrawal of the first end

30 of the first member from the first end of the second member, the elastic cord being elastically stretchable to an extent sufficient to permit the first end of the first member to be withdrawn from the second member to permit replacement of the spring.

35 In one form of the invention the handles can preferably be twisted relatively to the first member.

An embodiment of the invention will now be described by way of

40 example with reference to the accompanying drawings, in which:-

Figure 1 is a front view of an exerciser embodying the invention,

Figure 2 is a section on the line 2-2 in Figure 1, and Figures 3, 4, 5 and 6 illustrate the use of the exerciser.

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The illustrated exerciser has a strut comprising a tube 10 housing a compression spring 11, and a plunger 12 which can move down the tube 10 to compress the spring 11. At the top of the plunger 12 there are a pair of transverse handles 13 which are rubber covered for convenient grasping by a user. At the lower end of the strut there is a support composed of a pair of transverse arms 14 which are covered by sponge rubber sleeves. An elastic band 15 holds the parts in the illustrated position, but can be stretched to withdraw the plunger 12 for removal and replacement of the spring 11.

In practice the apparatus is supplied with a variety of springs 11 with different stiffnesses, say with three, for different users and for increasing resistance with progress.

During exercising the user presses the arms 14 against his thighs, grasps the handles 13 and performs a pumping action on the strut.

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This may be done sitting down as shown in Figure 3. Also by twisting the handles 13 as shown in Figure 4, different stomach muscles can be exercised. Exercises can also be performed while lying down (Figure 5) or standing up in a slightly crouched position (Figure 6).

The exerciser is reasonably inexpensive yet very effective for exercising those stomach muscles which are the bane of many modern people.

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CLAIMS

1.

An exercising device comprising:

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a) a strut composed of a first member having a first end and a second end and a second member arranged telescopically with the first member, the second member being of tubular form with an open first end and a closed second end, the first end of the first member being axially slidable within the second member and being capable of withdrawal through the first end of the second member;

10

15 b) a compression spring located in the second member between the first end of the first member and the second end of the second member, axial movement of the first member into the second member compressing the spring;

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c) third and fourth members spanning transversely across the second end of the first member and across the second end of the second member respectively, one of the third and fourth members providing handles at opposite ends thereof and the other of the third and fourth members having padded ends for resting comfortably against the thighs or lap of a user; and

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d) an elastic cord connected across the first and second members to hold the first and second members in their telescopic relationship and to prevent undesired withdrawal of the first end of the first member from the first end of the second member, the elastic cord being elastically stretchable to an extent sufficient to permit the first end of the first member to be withdrawn from the second member to permit replacement of the spring.

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2.

An exercising device according to claim 1 and comprising at least one further compression spring having spring characteristics which are different from those of the first-mentioned spring, the at least one further compression spring being interchangeable  
5 with the first-mentioned spring, to vary the effort required to operate the exercising device, when the first end of the first member is withdrawn from the first end of the second member.

3.

10 An exercising device substantially as hereinbefore described with reference to the accompanying drawings.

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